

FINAL REPORT

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The PI had nineteen papers either published or in press in 1999 through early 2002 (see attached bibliography). Ten of these (Thomas et al 1999, Geisler et al. 1999, Vasavada et al. 1999, Little et al. 1999, Gierasch et al. 2000, Ingersoll et al. 2000, Thomas et al. 2000, Dyudina et al. 2001, Zhang et al. 2001, Wang and Ingersoll 2002) were largely supported by the Mars Global Surveyor project and the Galileo project. The other nine papers were largely supported under this grant, and are listed in boldface below. Six of the nine are research papers. Their titles and abstracts are reproduced below. The *New Solar System* chapter and the *Meteorology at the Millennium* chapter are review articles, and the *World Book Encyclopedia* chapter is a popular article. Their title pages and abstracts are also reproduced below.

Andrew P. Ingersoll: Papers published or in press in 1999 through May 2002.

Refereed articles (papers supported under this grant are listed in boldface)

Thomas, P.C., M.C.Malin, M.H.Carr, G.E.Danielson, M.E.Davies, W.K.Hartmann, A.P.Ingersoll, P.B.James, A.S.McEwen, L.A.Soderblom, and J.Veverka. Bright dunes on Mars. *Nature* **397**, 592-594, 1999.

Pankine, A. A., and A. P. Ingersoll. Ejecta pattern of the impact of Comet Shoemaker-Levy 9. *Icarus* **138, 157-163, 1999.**

Geissler, P. E., A. S. McEwen, W. Ip, M. J. S. Belton, T. V. Johnson, W. H. Smyth, and A. P. Ingersoll. Galileo imaging of atmospheric emissions from Io. *Science* **285**, 870-874, 1999.

Vasavada, A. R., A. H. Bouchez, A. P. Ingersoll, B. Little, C. D. Anger, and the Galileo SSI Team. Jupiter's visible aurora and Io footprint. *J. Geophys. Res.* **104**, 27,133-27,142, 1999.

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- Thomas, P. C., M. C. Malin, K. S. Edgett, M. H. Carr, W. K. Hartmann, A. P. Ingersoll, P. B. James, L. A. Soderblom, J. Veverka, R. Sullivan. North-south geological differences between the residual polar caps on Mars. *Nature* **404**, 161-164, 2000.
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- Dyudina, U. A., A. P. Ingersoll, G. E. Danielson, K. H. Baines, R. W. Carlson, and the Galileo NIMS and SSI Teams. Interpretation of NIMS and SSI images on the jovian cloud structure. *Icarus* **150**, 219-233, 2001.
- Zhang, K. Q., A. P. Ingersoll, D. M. Kass, J. C. Pearl, M. D. Smith, B. J. Conrath, R. M. Haberle. Assimilation of Mars Global Surveyor atmospheric temperature data into a general circulation model. *J. Geophys. Res.* **106**, 32,863-32,877, 2001.
- Pankine, A. A., and A. P. Ingersoll. Interannual variability of martian global dust storms: Simulations with a low-order model of the general circulation. *Icarus* **155**, 299-323, 2002.**
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